

FIG. 1

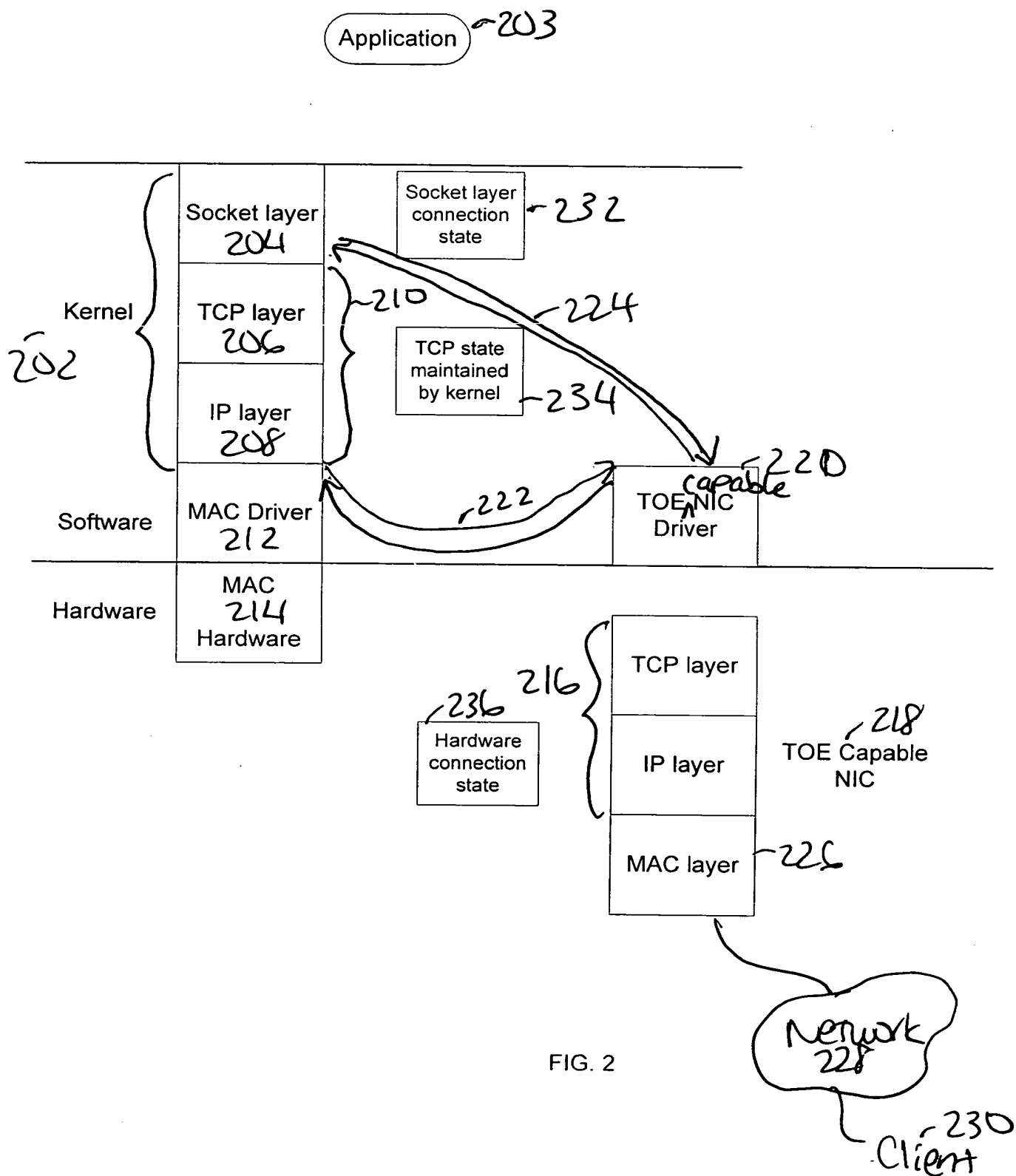


FIG. 2

## Data structures

### A. Data structures maintained by socket layer:

1. Connection state maintained by socket layer (SONODE): Socket state information  
    SOCKET LAYER CONNECTION IDENTIFIER  
    HARDWARE CONNECTION IDENTIFIER  
    POINTER TO CONNECTION STATE MAINTAINED BY KERNEL (\*  
CONNT)

### 2. Connection state table maintained by socket layer:

Identifier	State information
A	Pointer to socket layer connection state
.	.
.	.

### B. Connection state maintained by kernel (CONNT): TCP/IP state information     KERNEL CONNECTION IDENTIFIER

1. Minimum state necessary to offload a connection (MIN\_TCP\_T):  
    Local (server) and remote (client) IP addresses and ports  
    Send/receive sequence numbers of packets for the connection  
    Any round trip estimates for each packet  
    Congestion window, slow start

### C. Hardware connection state maintained by NIC (HW\_CONN\_T): NIC connection state     HARDWARE CONNECTION IDENTIFIER (HW\_CONNID)     POINTER TO SOCKET STATE INFORMATION (\* SONODE)

1. Minimum state necessary to offload a connection (MIN\_TCP\_T):  
    Local (server) and remote (client) IP addresses and ports  
    Send/receive sequence numbers of packets for the connection  
    Any round trip estimates for each packet  
    Congestion window, slow start

FIG. 3

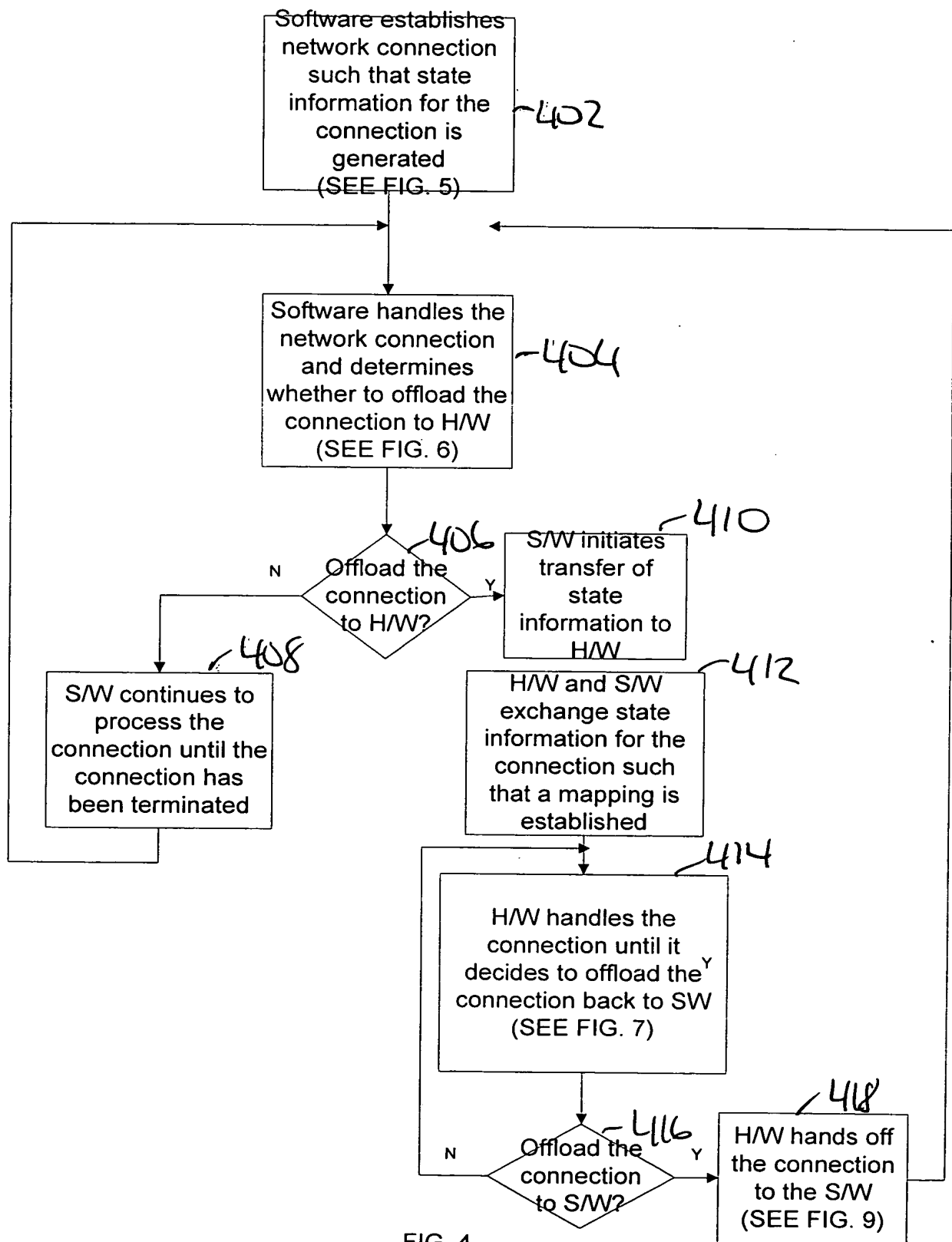


FIG. 4

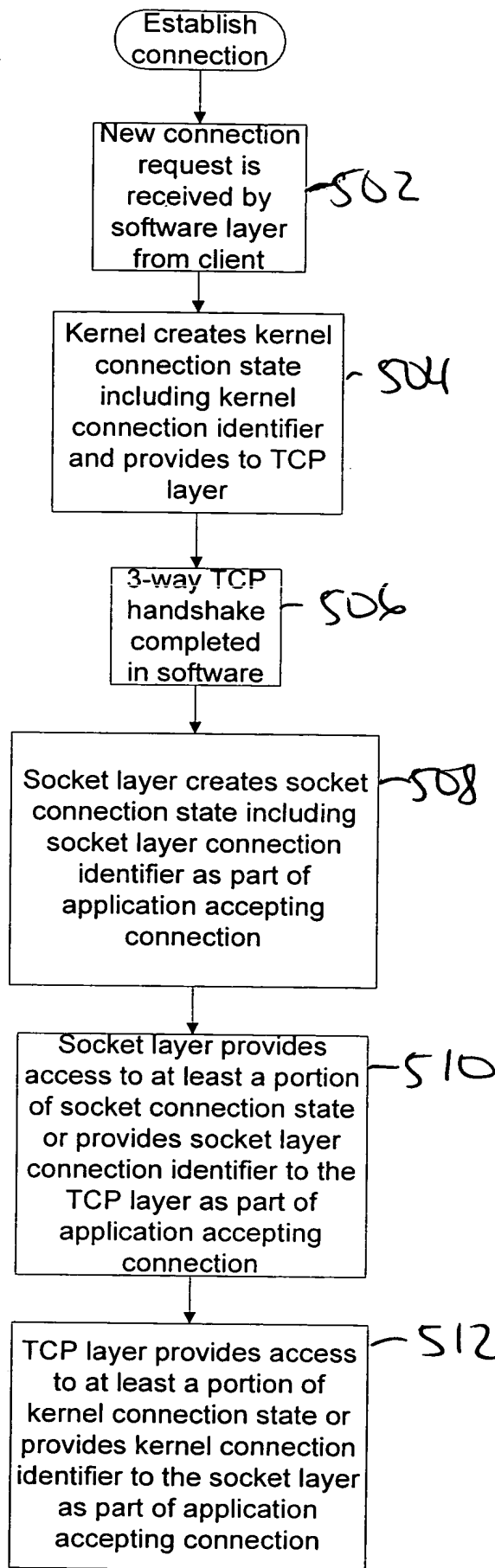


FIG. 5

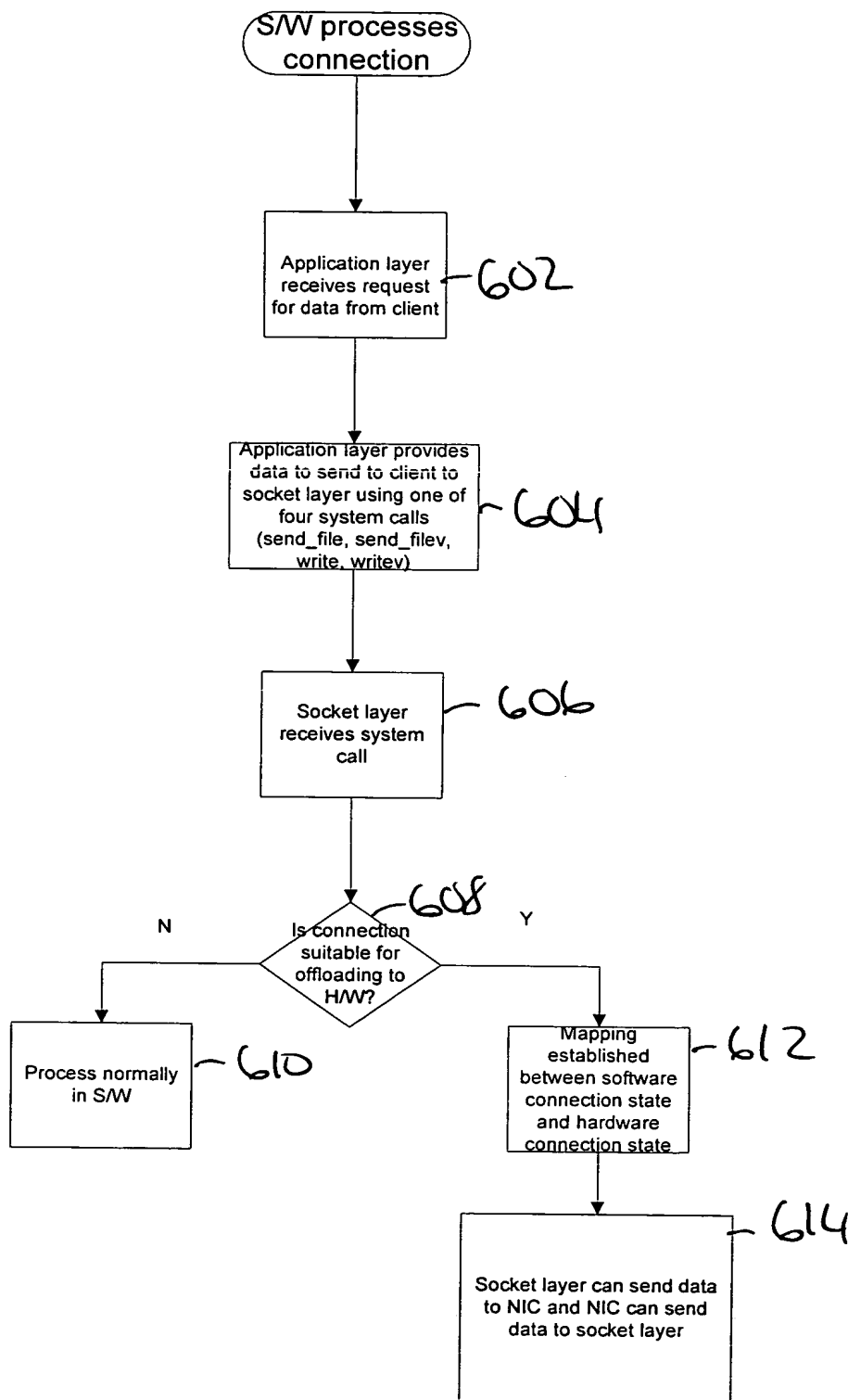


FIG. 6

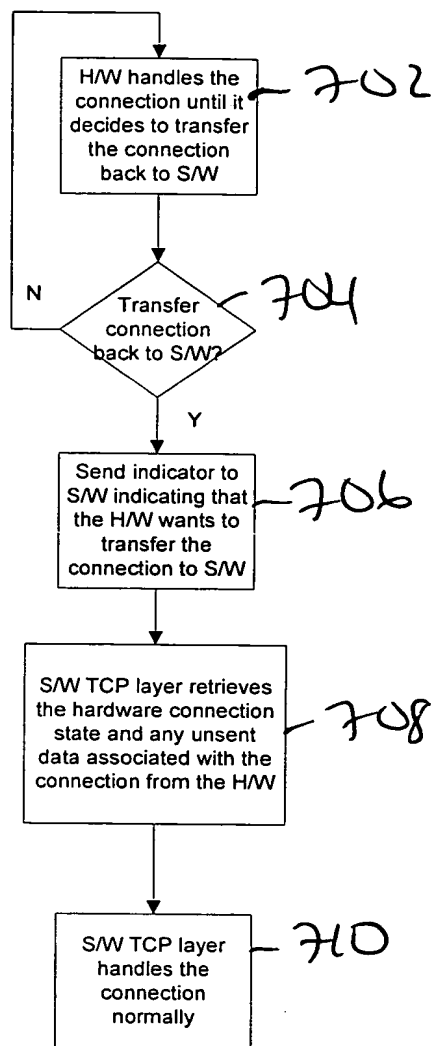


FIG. 7

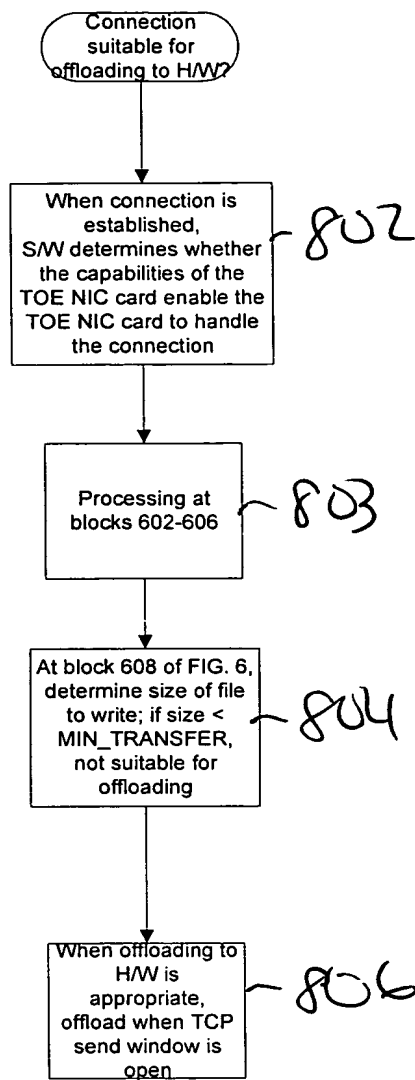


FIG. 8



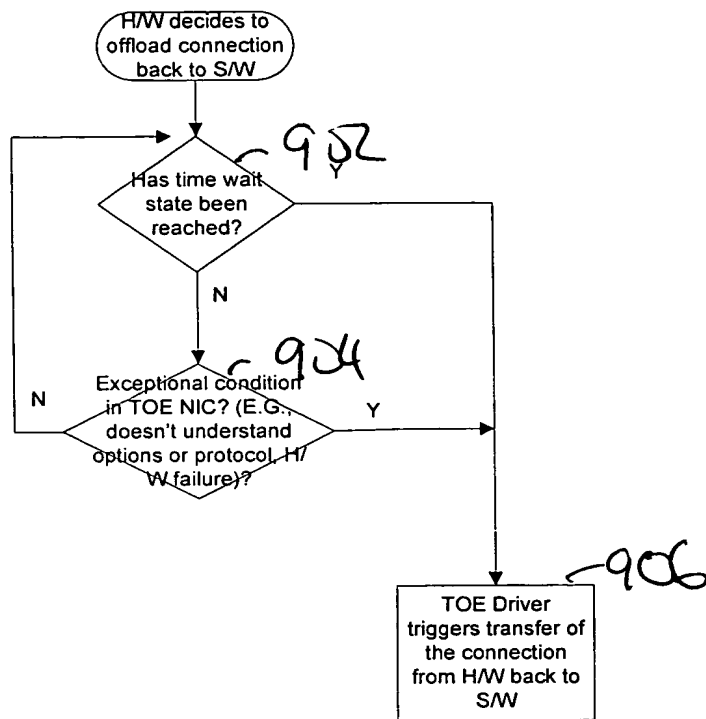


FIG. 9

FIG. 10

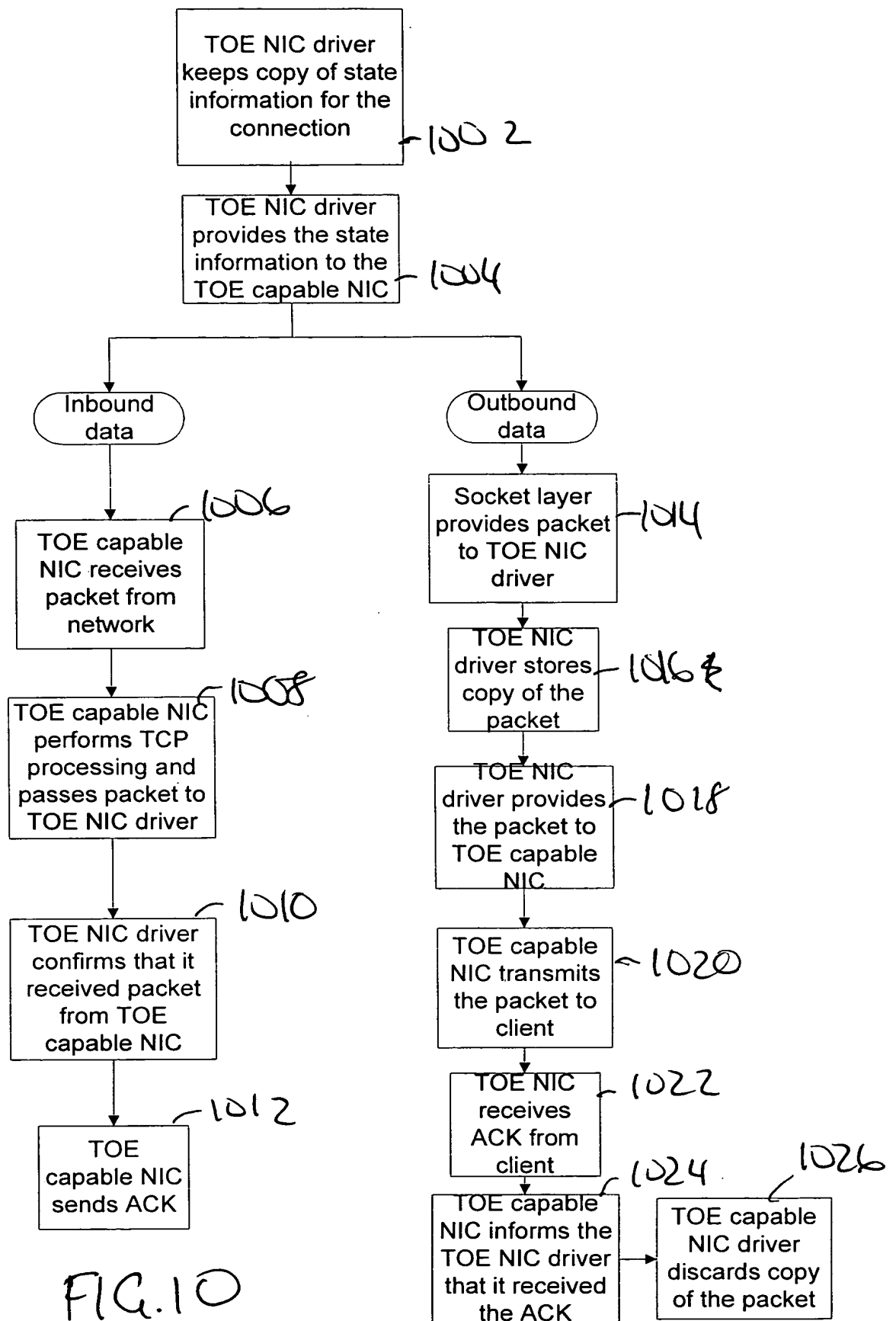


FIG. 10

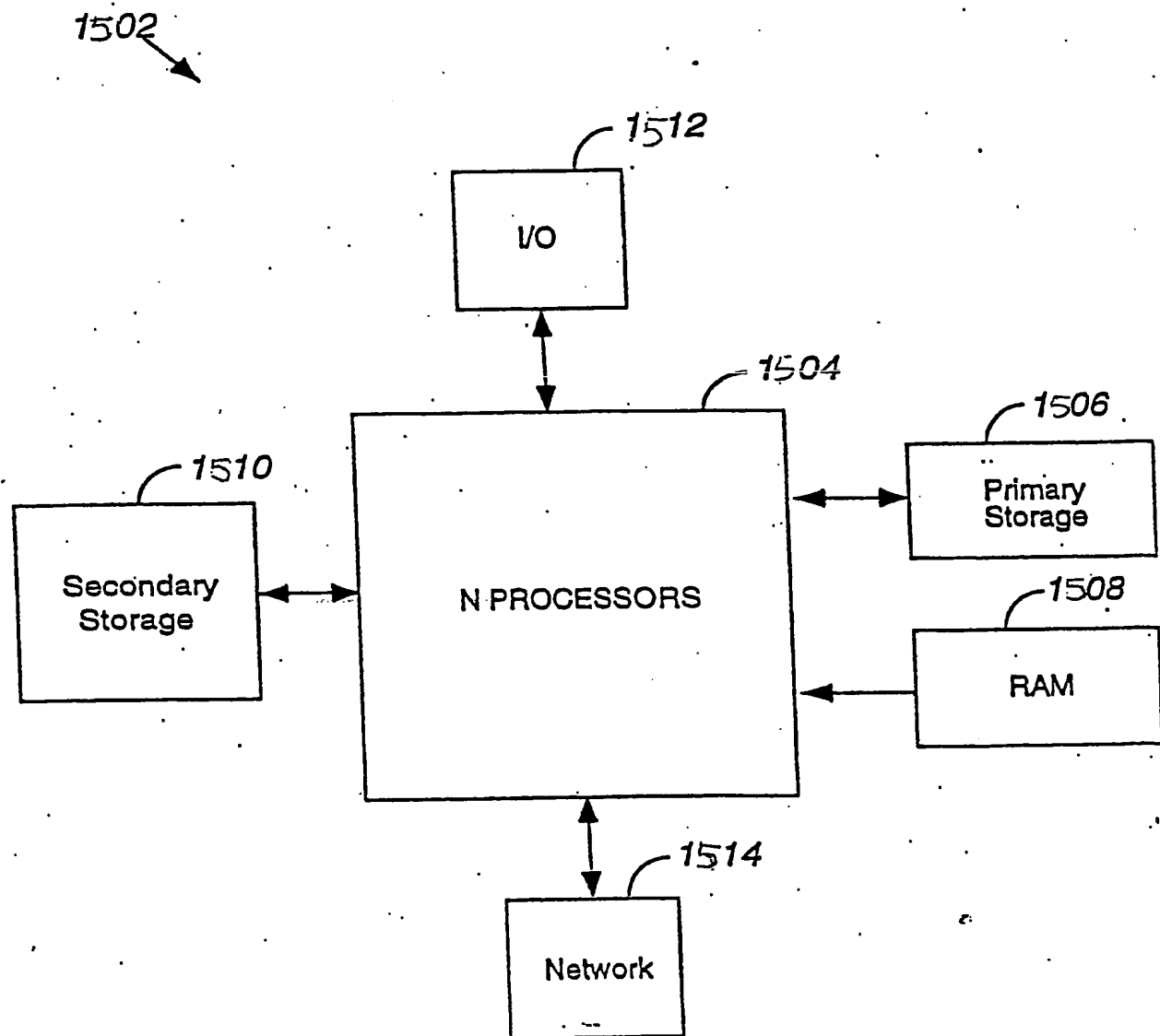


Figure 11